UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
2835	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/644,683	DUNSTAN, ROBERT A.
	Examiner	Art Unit	
	Michael Rutland-Wallis	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 March 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-38</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>19 August 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicants to the specification are hereby entered.

Applicant's arguments filed March 20, 2006 have been fully considered but they are not persuasive.

With respect to applicant's traversal of the 102(b) rejection of claim 1 applicant contends Haun does not teach that the backup source is switched on during an AC absent condition. The office maintains the previous rejection as Haun teaches a trip system which when power faults are detected in power lines switches to a backup supply in order to complete data transmission column 1 lines 19-51. Applicant also directs the office's attention to the fact the shut off of Haun is event based, while this may be the case of Haun the teachings of Haun still meets the claim language of "drawing on a backup source for a period of time". Subsequent arguments are made to claim 2-29 citing the same alleged deficiency of Haun, similarly the 102 and 103(a) rejections to these claims deemed proper and therefore is maintained.

With respect to applicant's traversal of the 103(a) rejection of claim 33 applicant contends that a strict time based shut off is not rendered obvious by the combination of Wong and Sanderford. While Wong teaches the monitoring of time remaining left of backup power Wong does not teach the "automatic shut off of a backup source of the apparatus" as currently amended claim 33 now requires. Applicant contends Sanderford

does not address a time based shut down and while the office does not concede this is

the case of Sanderford claims 33 and claims which depend from 33 are now rejected in

view of Brown below based on applicants amendments therefore rendering the point

moot.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12, 15 and 30-31 are rejected under 35 U.S.C. 102(b) as being

anticipated by Haun et al. (U.S. Pat. No. 5,162,664)

With respect to claim 1 Haun teaches a method of operation comprising:

powering the apparatus from a backup power source (a battery item 121), in response

to the apparatus being in an AC absence condition (AC power provided through power

line 100 during normal operations); and after drawing on the backup power source for a

period of time, automatically shutting off the backup power source (Haun teaches

disabling the backup source after all data has been transmitted column 4 lines 17-20).

With respect to claim 12 and 31 Haun teaches monitoring for absence of AC to

the power supply; and generating a signal (sends a signal to transistor item 112 see

column 3 lines 20-25) indicating AC absence on detection of absence of AC to the

power supply.

With respect to claim 15 and 30 Haun teaches A system comprising: a power

supply (AC power provided through power line 100 during normal operations) to supply

power to the system, including a backup power source (a battery item 121) to supply

power during absence of AC to the power supply; and an arrangement (transistor 112

controlled by micro-computer 110) coupled to the power supply to shut off the power

supply, after drawing on the backup power source for a period of time to power the

system during the AC absence (Haun teaches disabling the backup source after all data

has been transmitted column 4 lines 17-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Haun et al. (U.S. Pat. No. 5,162,664) in view of Fisher Jr. "hereinafter Fisher" (U.S. Pat.

No. 6,462,507)

With respect to claim 2 and 16 Haun teaches a system where the backup supply

is turned off after to conserve power for future communications. Haun does not teaches

the scheduling a real time clock to initiate waking of the apparatus after the period of

time, to shut off of the backup power source. Fisher teaches a system where a backup

energy storage source is connected. In column 23 lines 50-65 Fisher teaches a

controller (item 37) which periodically wakes up after a predetermined time executing

control signals and performing timing operations. Fisher uses this suspended type mode

of operation to conserve the power drawn from the rechargeable source, it would have

been obvious to one of ordinary skill in the art at the time of the invention to modify

Haun to suspend the system in response to a AC absent condition an to initiate waking

of the apparatus after a predetermined period of time to facilitate the shutting off of the

backup source to enable processing to complete before the backup source is

deactivated.

Claims 3-6 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Haun et al. (U.S. Pat. No. 5,162,664) in view of Fisher (U.S. Pat. No. 6,462,507) as

applied to claim 2 above, and further in view of Wong et al. (U.S. Pat. No. 6,509,657)

With respect to claim 3, 5 and 17 Haun as modified by Fisher do not teach a

BIOS in a process initiated by an operating system of the apparatus to suspend the

apparatus to memory, in response to the AC absence condition, to schedule the RTC to

initiate waking of the apparatus after the period of time. Wong teaches operating system

with a BIOS to facilitate the apparatus to suspended memory state. It would have been

obvious to one of ordinary skill in the art at the time of the invention to use the OS and

BIOS of Wong in the device of Haun as modified by Fisher in order to conserve the reserve battery.

With respect to claim 6 Wong teaches program instructions which are designed to facilitate enabling the apparatus to perform the shut off conditioned when AC remains absent at the apparatus. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong to use the logic of turning off the device based on a real time clock of the type seen in Fisher in order to better conserve the battery life of the reserve source.

With respect to claim 4 and 18 Haun as modified by Fisher does not teach a BIOS canceling the waking of the apparatus in response to an AC re-present condition. Wong teaches an interrupt handler routine and BIOS interface which comprises a self test to test whether the system is running on AC power of backup power and canceling or not allowing the powering up of the apparatus if the AC power is not present. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haun as modified by Fisher to further include the use of the self test to cancel the return to waking if AC conditions are not present in order to conserve the backup power source.

With respect to claim 19 Haun as modified by Fisher do not teach a BIOS to shut off the backup source the clock wakes the system up. Wong teaches operating system with a BIOS to facilitate the apparatus to suspended memory state. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the OS and

BIOS of Wong in the device of Haun as modified by Fisher in order to conserve the reserve battery.

With respect to claim 20 Haun as modified by Fisher do not teach a BIOS which is further equipped to cause the backup the backup source to shut off the backup source when AC power is absent. Wong teaches operating system with a BIOS to facilitate the apparatus to suspended memory state. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the OS and BIOS of Wong in the device of Haun as modified by Fisher in order to conserve the reserve battery.

Claims 7, 10-11, 21, 26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haun et al. (U.S. Pat. No. 5,162,664) in view of Sanderford, Jr. "hereinafter Sanderford" (U.S. Pat. No. 4,684,945)

With respect to claims 7, 21 and 32 Haun teaches arrangement comprises a micro-computer which controls the shutting off of the backup power source, while micro-computers are known to contain timers and clocks of various sorts Haun is silent on the use on the use of a timer set to expire after a period of time, to facilitate shutting off of the backup power source. Sanderford teaches an IC logic circuit which contains a timer to shut off a battery backup device (column 6 lines 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the timer circuit of Sanderford to control the amount of time the system draws from the backup source in order to ensure the backup supply is only used for a limited amount of time.

With respect to claim 10 Sanderson's timer expires after about one minute.

Sanderson system also uses comparison logic (multiple ICs seen in Fig 5A-D) to

facilitate the operation of shutting off the backup source.

With respect to claim 11 Haun's system shuts off the back source if the AC

remains absent

With respect to claim 26 Haun teaches system further comprises a controller

(item 110) to control at least a selected one of an input (select power line or battery) and

an output (item 127 display) of the system. While it is know that timers are present in

microcomputers if it is held that Haun does not teach the presence of a timer.

Sanderford teaches an IC logic circuit which contains a timer to shut off a battery

backup device (column 6 lines 1-5). It would have been obvious to one of ordinary skill

in the art at the time of the invention to use the timer circuit of Sanderford to control the

amount of time the system draws from the backup source in order to ensure the backup

supply is only used for a limited amount of time.

Claims 9, 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Haun et al. (U.S. Pat. No. 5,162,664) in view of Sanderford, Jr. (U.S. Pat. No.

4,684,945) as applied to claim 7 and 21 above, and further in view of Wong et al. (U.S.

Pat. No. 6,509,657). Haun as modified by Sanderford teach system of claim 7 but do

not teach the use of BIOS canceling the waking. Wong teaches an interrupt handler

routine and BIOS interface which comprises a self test to test whether the system is

running on AC power of backup power and canceling or not allowing the powering up of

the apparatus if the AC power is not present. It would have been obvious to one of

ordinary skill in the art at the time of the invention to modify Haun as modified by

Sanderford to further include the use of the self test to cancel the return to waking if AC

conditions are not present in order to conserve the backup power source.

With respect to claim 22 Haun as modified by Sanderford teaches the apparatus

of claim 9 but do not teach the use of a BIOS to couple the timer to intervene in a

process initiated by the OS to suspend the system. Wong teaches the system uses

Microsoft® Windows 98® which is know to store personal settings and configurations in

memory when the system is properly shut down and Wong's system is designed to

enable the user to properly shut the system column 6 lines 35-45. Once the user is

displayed an alert message by the timer indicating the reaming time the user may

intervene to properly shut down the system to enable the storing of the current

configuration of the system to memory. It would have been obvious to one of ordinary

skill in the art at the time of the invention to use the process of Haun to include the use

of a BIOS as seen in Wong in order to provide a more sophisticated user interface to

the to enable the user to intervene in the system response.

With respect to claim 23 Wong teaches an interrupt handler routine and BIOS

interface which comprises a self test to test whether the system is running on AC power

of backup power and canceling or not allowing the powering up of the apparatus if the

AC power is not present. It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify Haun as modified by Sanderford to further include the

use of the self test to cancel the return to waking if AC conditions are not present in

order to conserve the backup power source.

With respect to claim 24 Sanderford teaches a signal to turn off the backup

power device at the expiration of the timer (column 6 lines 1-5).

With respect to claim 25 Haun teaches the circuit (item 110) is further equipped

to receive an AC condition signal indicating whether AC presence or absence, and

condition the generation of the shut off signal based on the AC condition signal.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haun et

al. (U.S. Pat. No. 5,162,664) in view of Brown (U.S. Pat. No. 5, 854,904)

With respect to claim 13 Haun teaches the monitoring and generating are

performed by the controller. While Haun shows all components are separate, it is held

by the examiner that the power supply line output of the microcomputer may be

considered the output of the power supply as it supplies power to the controlled devices.

Brown teaches a similar configuration where a power supply is coupled to control

elements and monitoring components to aid in the switching to and from a backup

source. Brown teaches a power supply which contains all the components necessary to

control the power requirements of a computer. Brown in fact refers to his power supply

module as a small computer col. 11 line 23 further see col. 11 lines 15-53. While Haun

does teach using the configuration of a power supply module it would have been

obvious to one of ordinary skill in the art to use or consider the power supply where the

power is fed to the device in order to enable a power supply capable of controlling and

switching to a backup system when the primary system power is unreliable or to modify

Haun to use the power supply module (item 82 Brown) of Brown to enable a power

supply capable of controlling and switching to a backup system when the primary

system power is unreliable.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haun et

al. (U.S. Pat. No. 5,162,664) in view of Sanderford, Jr. (U.S. Pat. No. 4,684,945) as

applied to claim 21 above, and further in view of Brown (U.S. Pat. No. 5,854,904).

Haun as modified by Sanderford teaches the use of timer to control to switching to the

backup source. While Haun shows all components are separate, it is held by the

examiner that the power supply line output of the microcomputer may be considered the

output of the power supply as it supplies power to the controlled devices. Brown

teaches a similar configuration where a power supply is coupled to control elements and

monitoring components to aid in the switching to and from a backup source. Brown

teaches a power supply which contains all the components necessary to control the

power requirements of a computer. Brown in fact refers to his power supply module as a

small computer col. 11 line 23 further see col. 11 lines 15-53. While Haun does teach

using the configuration of a power supply module it would have been obvious to one of

ordinary skill in the art to use or consider the power supply where the power is fed to the

device in order to enable a power supply capable of controlling and switching to a

backup system when the primary system power is unreliable or to modify Haun to use

the power supply module (item 82 Brown) of Brown to enable a power supply capable of

controlling and switching to a backup system when the primary system power is

unreliable.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haun et

al. (U.S. Pat. No. 5,162,664) in view of Wong et al. (U.S. Pat. No. 6,509,657). Haun

teaches the system uses a remotely located computer terminal (item 106) but does not

teach use of a network interface. Wong teaches the use of an uninterruptible power

supply with a network interface (column 1 lines 35-43). It would have been obvious to

one of ordinary skill in the art to connect the output to a network interface in order to

protect a network from power failure.

Claims 33-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Wong

et al (U.S. Pat. No. 6,509,657) in view of Brown (U.S. Pat. No. 5,854,904)

With respect to claim 33 Wong teaches a storage medium (memory onboard the

microcontroller or mother board items 20 and 22), a plurality of programming instruction

stored therein, designed to enable an apparatus to be able to perform, when the

apparatus is in an AC absence condition (an interrupt handler routine and BIOS item

44). Wong teaches the use of monitoring function to display or alert to the user of time

reaming on the backup power supply (column 6 lines 19-45), Wong does not teach after

a passing of time an automatic shutoff is enabled to shut off the backup source of the

apparatus and the setting of a timer to expire to facilitate the automatic shut of a backup

source of the apparatus. Brown teaches a power management system where a control

module item 82 and power modules have clocks or timers (column 14 lines 16-54),

which enable them to activate and/or deactivate at selected times. It would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Wong

clock monitoring system to include the use of a clock and timer function of Brown to

switch on or off the power sources as user requirements and remaining power dictate in order to conserve power.

With respect to claim 34 Wong teaches the programming instructions are further designed to perform setting the timer, when intervening in a process to suspend the apparatus to memory. Wong teaches the system uses Microsoft® Windows 98® which is know to store personal settings and configurations in memory when the system is properly shut down and Wong's system is designed to enable the user to properly shut the system column 6 lines 35-45. Once the user is displayed the alert message by the timer indicating the reaming time the supply may be switched off as taught by Brown to conserve power once proper shut down requirements have been met.

With respect to claim 35 Wong teaches an interrupt handler routine and BIOS interface which comprises a self test to test whether the system is running on AC power of backup power and canceling or not allowing the powering up of the apparatus if the AC power is not present. It would have been obvious to one of ordinary skill in the art at the time of the invention to use of the self test to cancel the return to waking if AC conditions are not present in order to conserve the backup power source.

With respect to claim 36 Wong teaches program instructions which would enable the user to shut off the back source. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wong to use the logic of turning off the device based on a clock of the type seen in Brown in order to better conserve the battery life of the reserve source.

With respect to claim 37 Wong teaches program instructions which are designed
to facilitate enabling the apparatus to perform the shut off when AC remains absent at
the apparatus. It would have been obvious to one of ordinary skill in the art at the time
of the invention to modify Wong to use the logic of turning off the device based on a
timer of the type seen in Brown in order to better conserve the battery life of the reserve
source.

With respect to claim 38 Wong teaches the BIOS is used to interface
motherboard and the micro-controller and select the selected setting (column 1 lines 1-
45).

Conclusion

The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure. Jones et al (U.S. Pat No. 6,078,595) teaches a device similar to
claim 1 used in a network and backplane configuration, Green et al (U.S. Pat. No
6,204,573) disconnecting a power supply after a period of time, Nakamura (Pub No.
20020089233) teaches an uninterruptible power source which has a timing function and
control associated, Nemoto (U.S. Pat. No 5,307,318) teaches uninterruptible power
supply used in a computer system, Landis et al. (U.S. Pat. No 5,831,347) teaches in
more detail the use of a real time clock and other power supply switching controls
associated to monitoring a time delay.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRW

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